

REMARKS

The rejection of claim 12 under 35 U.S.C. 112, second paragraph, is obviated by appropriate amendment. Non-elected subject matter has been canceled from claims 12 and 17. Furthermore, claim 16 has been canceled.

In view of the above amendments and remarks, Applicant respectfully submits that the amended claims are definite within the meaning of 35 U.S.C. 112, second paragraph. Withdrawal of this ground of rejection is therefore respectfully requested.

Claims 12-14 were rejected under 35 U.S.C. 112, first paragraph, as containing subject matter not described in the specification in such a way to enable the invention.

The rejection is respectfully traversed. Applicant submits that the original specification and claims provide enabling support for the subject matter of claims 12-14 as amended herein. The burden is with the Patent Office to provide reasons and/or examples in support of its belief to doubt the objective enablement of the claimed invention. Since the Examiner has provided no evidence in this regard, the invention is clearly enabled to those of ordinary skill in the art. Accordingly, withdrawal of the rejection under 35 U.S.C. 112, first paragraph, is respectfully requested.

Claims 12-14 have been rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over either Barbeyron et al (U) or Potin et al. (V or W).

Applicant respectfully submits that the prior art does not disclose or suggest the claimed invention.

As is clearly understood, the hydrophobic cluster analysis method enables one to compare two proteins based on the secondary structure of the proteins. However, to compare

a kappa-carrageenase to an iota-carrageenase it is necessary to know which β strand of one protein is analogous to which β strand of the other protein. In the present case, this knowledge is impossible to gain because the two protein sequences are not alignable in either their primary or secondary structures.


Consequently, the HCA score of kappa-carrageenase from *Alteromonas carrageenovora* or *Delessaria sanguinea* cannot be as high as 65 % of the iota-carrageenase from *Alteromonas fortis*, and thus Barbeyron et al. (U) and Potin et al. (V and W) cannot anticipate or render obvious the claimed invention.

Accordingly, withdrawal of the rejections under 35 U.S.C. 102(b) and 35 U.S.C. 103(a) is respectfully requested.

Applicant respectfully submits that the present invention is now in condition for allowance. Early notification to that effect is earnestly solicited. If any final points remain that can be clarified by telephone, Dr. Patterson is encouraged to contact Applicant's attorney at the number indicated below.

Applicants hereby petition the Commissioner for Patents to extend the time for reply to the notice dated November 24, 2003, for three (3) months from February 24, 2004 to May 24, 2004. A duly completed credit card authorization form is attached to effect payment of the extension fee.

Respectfully submitted



May 24, 2004

Malcolm J. MacDonald, Ph.D.
Reg. No. 40,250
Tel: (703) 837-9600 Ex. 24